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Implementation of a culturally adapted treatment to reduce barriers for Latino parents.

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Abstract:

Literature to date has not yet included a comprehensive examination of barriers to participation in treatment for Latino populations, incorporating the role of acculturation. This study reports on the process of developing and implementing a culturally adapted treatment for promoting parent involvement by Latino parents in Head Start preschool programs and examines engagement factors affecting participation in the treatment. Results show that Latino parents with higher native cultural competence perceived more benefits to the treatment and reported fewer barriers than parents with lower native cultural competence. Also, the total number of barriers to participation that parents perceived before treatment was negatively associated with treatment participation, above and beyond the influence of acculturation factors, parent perceptions of economic stress, and perceived program benefits. Results are discussed in terms of how to establish effective community-based mental health and educational outreach programs to promote engagement with Latino families. The importance of using bidimensional models of acculturation within research designs with Latino populations and ideas for future research are discussed.

Keywords: latino | acculturation | barriers | culturally adapted treatment | parental involvement | Head Start preschool programs | psychology

Article:

Latinos are presently the largest ethnic minority group in the United States. According to the 2010 Census, more than 50 million Latinos live in the United States, accounting for 16.3% of the total U.S. population and 23.1% of children under the age of 18 (U.S. Census Bureau, 2010). The Latino population represents one of the fastest growing ethnic groups in the United States, showing a 30.3% increase from 2000 to 2010, compared with a 10.6% increase for African Americans and a 1.1% increase for non-Hispanic Whites (Pew Hispanic Center, 2008; U.S. Census Bureau, 2010). As of 2007, more than half of Latino children were classified as “second generation,” meaning that they were born in the United States to immigrant parents (Fry &

Passel, 2009). Despite this growth, services in health care and education have not expanded in parallel to meet the needs of this burgeoning, diverse population. This limited response has likely contributed to the disparities now found in health care, mental health, and educational opportunities available and accessible to Latinos residing in the United States.

Disparities are defined by The National Healthcare Disparities Report (2010) as health conditions that are unequal to some degree, including factors that are associated with differential rates of disease for a subgroup or population (see Carter-Pokras & Baquet, 2002 for analysis of existing state and federal definitions of disparities). Generally, ethnic minority populations in the United States experience health disparities, including a reduction in opportunities to access and benefit from quality health care services. For example, fewer than 1 in 20 Latino immigrants with mental disorders use services of mental health specialists (U.S. DHHS, 2001) and advances in medicine are less likely to reach Latinos (Reyes, Putte, Falcon & Levy, 2004). Additionally, disparities have been documented in parental access to services regarding their child's mental health (Alegría et al., 2004) and in representation in center-based childcare and prekindergarten programs that promote school readiness (Karoly & Gonzalez, 2011; Mather & Foxen, 2010).

To overcome disparities, researchers have suggested that cultural adaptations of existing treatments would help address the underutilization of services by ethnic minority populations (Smith, Domenech Rodriguez & Bernal, 2011). Several models have been proposed to help service providers adapt existing programs or develop new ones that are tailored to meet the specific needs of diverse families. Lau (2006) presented a theoretical framework for determining when and how to develop a cultural adaptation of a psychological treatment. The model contains two key elements; specifically, engagement, which refers to how well an intervention can successfully reach and engage potential participants, and outcomes, which refers to how well the intervention meets target goals. Lau (2006) proposed that participants' engagement in an intervention rests on its social validity, or the degree to which recipients believe a service is useful. Barrera and Castro's (2006) expanded model of cultural adaptation shows that engagement can consist of a number of components, including awareness of treatment availability, entry into treatment, participation in treatment activities, and completion of treatment. Social validity, defined as the “perceived acceptability and utility, perceptions that might be influenced by cultural worldviews and the practical realities of life circumstances,” (Barrera & Castro, 2006, p. 312) can influence engagement at all levels.

Gaps in the Literature

Although some research has demonstrated the effectiveness of culturally adapted treatments (Domenech Rodríguez, Bauman, & Schwartz, 2011; McCabe, Yeh, Garland, Lau, & Chavez, 2005; Reese & Vera, 2007), existing studies generally do not explain the process of how cultural factors influence treatment engagement by the participants. Based on reviews of existing treatment outcome research, it appears that when a treatment is closely aligned to the cultural worldview of the client, the more likely it is to be successful (Smith et al., 2011). Scholars

examining culturally adapted treatments disagree as to the degree to which adaptations should be implemented from the outset (e.g., Bernal, Bonilla & Bellido, 1995) or if evidence-based practice should be modified only when existing treatments have been shown to be ineffective. There seems to be greater agreement that intervention delivery should at minimum occur in the client's preferred language (Smith et al., 2011).

Presently, we are lacking studies that describe and critique the process of adapting a treatment to be relevant for Latino populations. Research is needed to examine how specific cultural factors, such as acculturation, interact with other contextual barriers faced by Latino families, such as economic factors, to influence treatment engagement. Producing culturally adapted treatments for a range of issues specific to Latino populations that are available in Spanish is also a pressing need (Calzada, Fernandez & Cortes, 2010). Although multiple meta-analyses suggesting that evidence based practice (EBP) using cultural adaptations, specific to the client's background and preferred language, produce stronger effects than programs without such adaptations, the availability of these types of programs is insufficient (Griner & Smith, 2006; Smith et al., 2011).

The present study seeks to address these gaps in several unique ways. First, we describe a process used to develop a culturally adapted treatment for promoting parent involvement by Latino parents in Head Start preschool programs. Second, we pilot and implement the new intervention while simultaneously examining engagement factors affecting participation in the treatment. To this end, we measure parent perceptions of contextual barriers that likely influence our participants' program attendance in addition to their level of acculturation before beginning the intervention program. By simultaneously considering how barriers to participation are related to the overall acculturation of the parents in our study, we seek to offer a more complete picture of how acculturation may interact with other engagement factors. We examine the role of acculturation in treatment engagement with a sample of relatively recent-arriving Latino families, seeking to determine whether a culturally adapted treatment is useful for this population. This goal was selected because research has shown that families with low levels of acculturation to the U.S. are least likely to access quality health services (Lara, Gamboa, Kahramanian, Morales & Bautista, 2005). In the next section, we describe the conceptual model used to guide this research study.

Conceptual Model

To inform our research, we developed a theoretical model that is similar to those proposed earlier by Barrera and Castro (2006) and Lau (2006). We selected these models because of the explicit consideration by these authors of factors that would promote engagement, as well as the emphasis on planned accommodations that would be refined through pilot work. Figure 1 depicts multiple factors that could influence engagement in an intervention designed to promote parent involvement among low-income Latino parents of preschool children attending Head Start. Specific factors in our model include barriers to participation, perceived benefits of the program, perceived economic stress, and parents' level of acculturation. Considering acculturation as an

engagement factor is a unique and important feature of our model because although participants in our intervention were recent immigrants to the U.S., they likely have different opportunities and resources available to them to learn about U.S. culture. Additionally, measuring acculturation directly, as opposed to utilizing proxy variables such as length of residency in the United States or English-speaking ability, is a more precise approach to assessing the importance of this construct to treatment engagement (Lara et al., 2005). We sought to test the influence of each of these engagement factors on attendance in our program and whether parents' level of acculturation would influence their experience of barriers to treatment, or alternatively, their perception of benefits to treatment. Figure 1 also summarizes the planned adaptations that were developed through a series of steps, including a recommended brief pilot of the proposed new intervention (Barrera & Castro, 2006). Before describing in greater detail the adaptation process, we briefly review extant literature involving treatment engagement for immigrant populations.

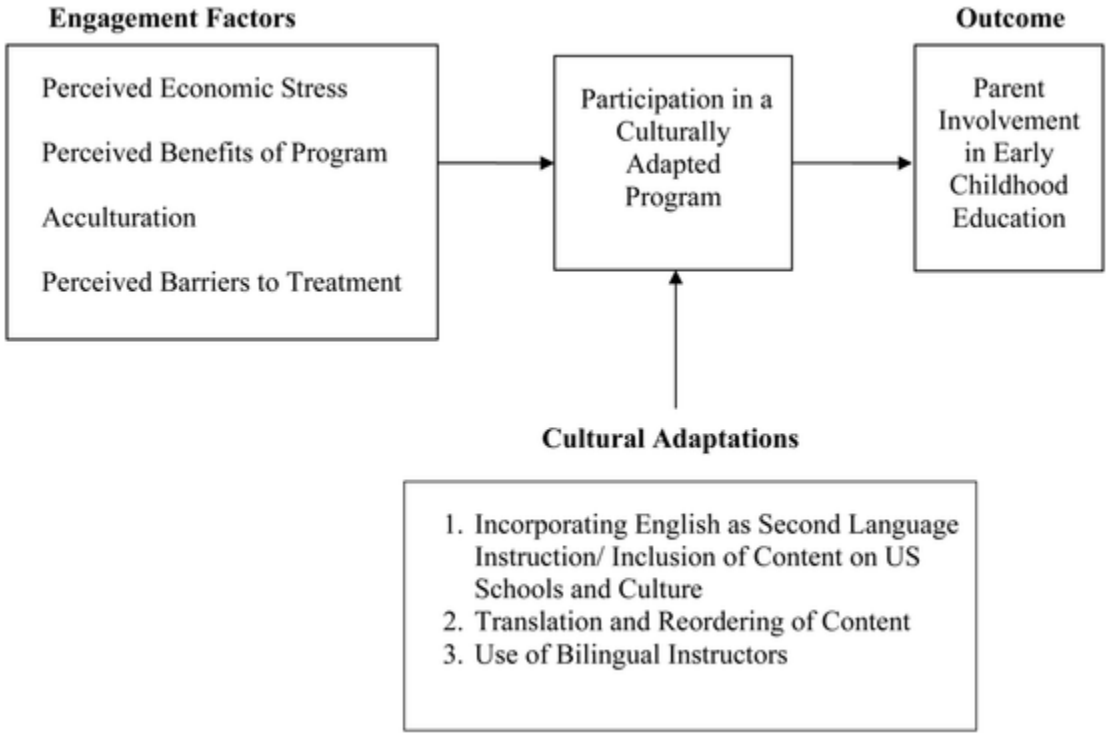

Figure 1. Conceptual model for developing a culturally adapted parent involvement program for Latino parents.

Factors That Influence Engagement in Treatment

The call for greater development and use of culturally adapted treatments is driven by the recognition that an individual's culture influences treatment engagement (Barrera & Castro, 2006; Lau, 2006). One notable factor that has been measured among culturally diverse populations, particularly immigrant groups, is acculturation. Scholars view acculturation as involving both psychological changes in attitudes, values, and behaviors that result when an individual or group has contact with a new or different culture (Berry, 1980, 2003, 2006; Zea,

Asner-Self, Burman, & Buki, 2003). Theoretical models of understanding acculturation for immigrants have moved toward a recognition of the importance of the bidimensional process that occurs as the individual navigates a new culture while also maintaining or modifying features of one's native culture (Harwood & Feng, 2006; Lara et al., 2005). In Berry's (1980) bidimensional model, acculturation for immigrant populations is viewed best as a continuum on two dimensions—individuals range on their capacity to maintain their native cultural competence and also range in their adaptation to the culture of the new society.

In reviewing literature involving immigrant and low-income samples, some studies reported how acculturation may influence parent engagement in complex ways. For example, parents hold beliefs regarding the importance of education and have respect for teachers; however, one study found they did not expect to be involved with the school directly (Mapp, 2003). In fact, parents viewed parent involvement as possibly disrespectful to the teacher and school. Also, a lack of familiarity with expectations of U.S. schools could influence parents' efficacy about school involvement. Research with Latina mothers demonstrated that lower acculturation to the United States was associated with less knowledge about school activities and more barriers to parent involvement; however, parents with lower acculturation reported higher levels of efficacy and expectations for their children's educational attainment than Latina mothers with higher acculturation (Moreno & Lopez, 1999). Finally, Mexican American mothers reported that acculturation differences between parents and children, separation from extended family, discrimination against immigrants, and concerns about legal status negatively impacted their parental involvement (Leidy, Guerra & Toro, 2010).

Researchers have also examined the influence of barriers to treatment on engagement among low-income, ethnic minority samples, apart from cultural factors such as acculturation (Karoly & Gonzalez, 2011). For example, a study of low-income preschool parents found that contextual barriers, such as work schedules, time, and transportation availability significantly decreased intervention attendance by parents (Mendez, Carpenter, LaForett, & Cohen, 2009). In another low-income, ethnically diverse sample, similar barriers emerged including work schedules, caring for children and elderly parents, and lack of transportation (Mapp, 2003). Finally, parents report barriers such as negative relationships with the school, including perceiving their school involvement as unwanted (Baker, 1997).

Less attention has been given to a related factor, perceived benefits of treatment, which may influence treatment participation. In general, it is predicted that parents who expect to receive greater benefits from a program will be more likely to participate than parents who expect fewer benefits. In a community-based intervention study, parents' perceived benefits of a program were associated with project participation, whereas perceived barriers were negatively associated with project participation. However, this was only true for parents who initially intended to participate (Spoth & Redmond, 2000). Greater study of the role of perceived benefits for participation among immigrant samples is warranted, as these factors could inform the social validity of an

intervention. As noted by Lau (2006), when parents perceive a service is useful to them, the social validity is high and participation may increase.

Cultural Adaptation of an Intervention for Head Start Latino Parents

The increase of Latinos nationally is also reflected in the number of parents enrolling their children in Head Start. Latinos are now one of the largest groups served by Head Start programs (36%) and 28% of children attending Head Start live in households where English is not the primary language spoken (Aikens et al., 2010). Therefore, there is a significant need to develop programs that are socially valid for Latino families, especially in the area of parent involvement. Head Start defines any child raised in a bilingual household as a Dual Language Learner student, and seeks to provide services in particular for these families. Based on an existing relationship with our local Head Start provider, we formed a partnership to develop and implement a culturally adapted parent involvement program. We worked closely with teachers, program administrators, and parent representatives to adapt an existing program for use in this Head Start setting and decided to target all parents who reported speaking a language other than English at home, the majority of whom were Latinos. This approach was consistent with Head Start policies, which articulate that parent services should be open to all interested families; however, our conversations primarily focused on cultural adaptations that would be appropriate generally for immigrant parents and specifically for Latino parents.

We selected an intervention for consideration as a culturally adapted treatment that was available in the empirical literature and was previously used effectively in Head Start programs with African American families. The original program, called The Companion Curriculum (TCC; Mendez, 2010), promotes parent involvement at home and within the school setting using a series of lessons and materials to promote parent–child interactions. In considering possible adaptations that were needed, we identified the following issues primarily by having informal conversations with a Latina center director, bilingual parents, family service workers at Head Start, teachers, and by observing current parent meetings offered by the program. Following suggestions provided by Auerbach (2004), we discussed how small, intimate group meetings held in the school building would best allow Latino immigrant parents to feel comfortable sharing their true concerns. We also determined that information should be shared with parents using bilingual speakers with similar cultural backgrounds (Auerbach, 2004).

Several individuals from the leadership of our Head Start program suggested that combining parenting lessons with English as Second Language instruction into one program would increase the social validity for immigrant parents. Therefore, we incorporated materials typically found in English as Second Language (ESL) courses as part of the new intervention. Embedded in these English lessons was information about United States culture to help parents navigate new situations such as school, doctor's offices, or local transportation. By encouraging parents to have discussions in both English and their home language about a wide range of topics, it was our intention that the culturally adapted intervention would meet the needs of parents along a

continuum of acculturative experiences, thereby minimizing this access barrier. For example, parents with more familiarity with U.S. schools could assist other parents; however, other parents may have more experience with the health care system. The second major cultural adaptation was to translate nine Parent Excellence lessons and a summary session into Spanish. Handouts for each lesson were provided in both the home language and English to reinforce the exposure to two languages. We involved multiple translators from several different Latin American backgrounds in order to select intervention content and language that might be meaningful and understood by parents from a variety of Spanish-speaking countries.

A third adaptation involved hiring and training bilingual instructors to teach the Parent Excellence Lessons in either Spanish or English. The bilingual center director was a forceful proponent of providing parents opportunities to practice writing and communicating in English, to eventually encourage them to be full participants in their child's education. To provide scaffolding to learn new skills, all of the key concepts from each lesson were first reviewed in Spanish and then in English by the class leaders. Parents were encouraged to speak and promote literacy with their children in both their home language and English. To build relationships between care providers and participants, we had the bilingual facilitator make reminder calls to parents using Spanish before class meetings and also assist parents with any reported access barriers, such as transportation or child care needs. A minimum of one hour of training on each lesson, and review of phone calls and previous sessions, occurred weekly for all class facilitators throughout the duration of the program. Supervision was provided by the study investigators. In the majority of class meetings, we used two trained instructors with a ratio of about 8–10 parents for every one instructor.

After completing our adaptation phase designed to enhance the social validity of the intervention, we used contacts from the family service worker to recruit a sample of parents to conduct a pilot of four TCC lessons and the ESL content. Following the 4-week pilot, we asked 17 parent participants to discuss strengths and weaknesses of the program and whether they or others like them would participate in a longer version of the intervention consisting of similar lessons. Feedback showed parents' unanimous interest in continuing to hold sessions at the school and to offer this program again. They reported that the ESL content and parenting information were helpful to their family but requested that Head Start provide a longer program on multiple days that would give them more time for conversations and learning. Parents also suggested that the program should be offered multiple times during the school year. Following these suggestions, we increased the intervention dosage from one hour per week to three hours per week and held meetings twice weekly.

Lastly, parents who participated in the pilot reported that some lessons were easier to understand and use at home with respect to the content than other lessons. As outlined in Table 1, the original content of the intervention followed a particular order, with the opening session focusing on play as a learning tool for child development. The Latino parents offered to us that storytelling was a favorite concept from the curriculum, and therefore it seemed appropriate to

move this lesson earlier in the intervention sequence. Other examples of cultural adaptations included featuring children's books that were available in Spanish and English with a range of characters in the Reading Together lesson or encouraging families to share stories, pictures, and/or practices of their home country with their children in the Building an I Can attitude lesson. In this way, parents were afforded the opportunity to incorporate the Latino culture into activities designed to promote school readiness and success in preschool for their children. Table 1 provides an overview of each specific session of the program, with the concepts designed to promote three components of school readiness for children (literacy, numeracy, and socioemotional competence).

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The outcome of these steps was a 12-week intervention consisting of two weekly 90-min classes, one using a Parent Excellence Lesson and one focusing on ESL instruction using a workbook of English vocabulary and grammar (for intervention materials, contact author). Trained bilingual facilitators taught each lesson in both English and Spanish as needed. Parents received double-sided lesson handouts in both English and Spanish, as well as colorful, child-friendly materials (e.g., puppets, alphabet letters) designed to illustrate the theme and to foster parent–child interaction at home. The ESL portion of the class incorporated information (e.g., reviewing vocabulary in English and helpful phrases) to assist parents with navigating services, such as how to use the pharmacy, or United States schools. Importantly, the sessions were all held at the child's school, a familiar location to the family members.

Present Study

This study examines how perceived barriers and potential benefits affect participation in a culturally adapted intervention for Latino parents. We hypothesized that Latino parents would report experiencing a range of barriers to treatment participation, as these factors have been previously identified in treatment studies involving low-income populations (Kazdin, Holland, & Crowley, 1997; Mendez et al., 2009). We hypothesized that because of our cultural adaptations and changes after the pilot, the social validity would be adequate, meaning that parents would endorse a range of benefits associated with participation in our program, such as learning English or increasing their parent involvement. Because of the cultural adaptations made to the treatment, (e.g., use of bilingual facilitators and materials), we expected that parents ranging in level of acculturation would participate. Based on mixed findings in the literature (Lara et al., 2005) and the lack of studies that use a bidimensional model of acculturation, we tentatively hypothesized parents with low levels of US cultural competence would perceive greater benefits associated with treatment than highly acculturated parents. Finally, we examined how parent-reported barriers would influence participation, above and beyond level of acculturation, perceived benefits of the program, economic stress, and length of residency in the United States. By first controlling for these variables, our investigation sought to determine how

barriers that might be more modifiable would engagement by Latinos families in culturally adapted treatments.

Method

Participants

Latino parents of children enrolled in Head Start programs who expressed interest in an adult literacy and parenting program were eligible for this study. Parents in our study lived in suburban areas on the outskirts of a major metropolitan area in the Northeast. A total of 54 Latino parents (91% female) participated in the study, representing a variety of countries of origin including Ecuador (30.91%), Mexico (21.82%), Brazil (20%), Honduras (14.55%), Peru (5.45%), Colombia (3.64%), and Puerto Rico (1.82%). The participants' mean reported monthly income was $1,052 (n = 40, range, 0–2,400) with a median length of residence in the United States of 6 years (range 1–20). Ninety-four percent of the sample reported living in the United States for 10 or fewer years. Participants had a child 3.63 years of age on average, which is consistent with the target age group for Head Start children (ages 3–5). The majority of the parents (53.7%) were married or living with a significant other, 35.2% were single, and 11% were divorced or separated. The majority of parents (81.5%) did not attend school in the United States. Of the six parents who reported attending school in the United States, two earned a high school diploma or GED, two completed job training or vocational school, one completed 9th grade, and one did not report the level of schooling completed.

Study Procedures

This study was conducted in partnership with a community action agency offering Head Start services over a three-year period in accordance with approvals from our university IRB. The study procedures were also approved by the Head Start parent policy council and the agency director. We rotated offering the program at three centers during this time, once each year in the fall and the spring, generally following the Head Start calendar and avoiding weeks when school was not in session (e.g., winter break). Parents were recruited to participate using multiple recruitment strategies including speaking at parent orientation sessions during the beginning of the school year, attending parent meetings each month, sending home information sheets in both native and English language with children identified by the school as Dual Language Learners, asking the school staff and prior parent participants to refer parents to the program, and meeting with all school staff. Study facilitators presented parents with written information in both Spanish and English about the study and consent forms. A bilingual research assistant explained project goals and objectives to the participants and read consent forms orally.

Upon enrollment in the study, parents completed self-report measures two to three weeks before participating in the adapted intervention and again at the conclusion of the program. All parent data were collected via individual interviews completed in person or via telephone with a bilingual interviewer who had no contact with parents enrolled in the classes. Parents received a

$30 dollar gift card for participating in each assessment. Parents kept all the intervention materials and workbooks. Parents were not provided financial compensation to attend the intervention classes.

Measures

Perceived barriers and benefits

The Barriers/Benefits measure (Mendez et al., 2009; Mendez, 2010) was developed in prior intervention research studies to assess access barriers that influence families from low-income backgrounds. Barriers assessed include the following: No need for parenting program, lack of child care, not comfortable with talking about parenting with others, work schedule conflict, concerns that your family or friends would disapprove, health related problems, religious activities, transportation, night classes, too tired, or “other” barriers not captured by the previous categories. Parents indicate whether they perceived each item as a potential deterrent from their participation with a rating scale of 1–4 (1 = Definitely Yes, 2 = Probably Yes, 3 = Probably No, 4 = Definitely No). Items are reverse coded for scoring so that higher scores represent more perceived barriers. Benefits assessed include the following: Increasing your involvement with the Head Start program, improving your parenting skills, helping you communicate with your child's teacher, improving your child's understanding of letters and numbers, improving your child's behavior, providing you with educational activities to do with your child, improving your knowledge of child development, meeting new parents, reducing stress in your life, and understanding things about your child's schooling. Parents rated items on a scale of 1–4 (1 = Not at all beneficial, 2 = A little beneficial, 3 = Somewhat beneficial, 4 = Extremely beneficial). A higher total score signifies more perceived benefits.

Acculturation

The Abbreviated Multidimensional Acculturation Scale (AMAS-ZABB; Zea et al., 2003) is a 42-item measure that assesses aspects of acculturation in both the native culture and U.S. culture. For this study, the Native Cultural Competence, U.S. Cultural Competence, Native Language, and U.S. Language subscales were used in analyses. Cultural competence includes knowledge about the culture and the ability to function in it. Items on this scale include familiarity with national heroes, TV shows, pop culture, and politicians. Language competence assesses how well the reporter speaks a given language in different situations, such as school, work, with friends, on the phone, and in general. Most of the validation work has focused on multiple samples of Spanish-speaking populations, and good evidence has been obtained in support of construct validity. In our sample, there was a high correlation between U.S. language and U.S. competence ($r = .80$, $p < .01$); therefore, we determined that use of a composite score in analyses was warranted. The composite score for U.S. acculturation was created by taking the average of the U.S. Language and U.S. Competence subscale scores, which showed good reliability with a

Cronbach's alpha of .95. Cronbach's alphas for Native Language and Native Competence were .96 and .93, respectively.

Demographics and economic stress

Parent reported demographic information included duration of residency in the United States, country of origin, number of children, number of people living in home, marital status, occupation in the United States, education, income, and economic stress. Economic stress was measured using items developed by Conger and colleagues (1992) that assess the degree to which parents' perceive their income as sufficient to meet their needs.

Attendance

Attendance was measured by the total number of classes parents attended. Some intervention sites differed slightly in number of classes offered, primarily because of snow days and other calendar differences across the school year; however, all sites provided instruction using the same ESL workbook and nine Parent Excellence lessons. To make the attendance variable, a percent attendance variable was created by dividing the total number of classes the parent attended by the number of classes offered at that location.

Data Analysis

We computed means and standard deviations for all study variables. We used paired t tests to statistically compare the levels of acculturation or competence in both the native and U.S. cultures. Bivariate correlations were run to inform the use of hierarchical regression. We used this type of regression model to determine how much variance in program engagement was associated with reported barriers to treatment, after controlling for length of residence in the U.S., benefits, acculturation, and parent economic stress. Because U.S. language and U.S. competence were very strongly associated we averaged these scores to make a composite score, which was used for all remaining analyses. In step one, we entered length of residency in the United States. In step two, acculturation indices (native competence, native language, U.S. language/competence composite) and parent perceptions (perceived economic stress and perceived benefits of the program) were entered into the model. Lastly, the barriers-to-treatment variable was entered into the regression.

Results

Table 2 reports the average score for each barrier and benefit item on the survey in descending order, starting with the most frequently endorsed barrier. The overall mean number of perceived barriers in this sample of Latino immigrant parents was 1.81 with a range of 1.00–3.08 (see Table 2). The barrier endorsed most often by the sample was “Difficulty finding childcare.” The least often barrier endorsed was “Not comfortable talking about parenting with others.” The overall mean number of perceived benefits reported by the sample was 3.54 with a range of 3.2–

3.83 (see Table 2). The benefit endorsed most often by the sample was “Understanding things about your child's schooling.” The least often benefit endorsed was “Helping you communicate with your child's teacher.”

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Next, means and relations among the four subscales from the AMAS-ZABB measure of acculturation were examined (see Table 3). Paired samples t tests showed significant differences between all acculturation scales, indicating that the sample reported the highest scores for measures of Native Language, followed by Native Competence, with U.S. Language and U.S. Competence yielding the lowest subscale scores.

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We examined the bivariate correlations among the subscales from the AMAS-ZABB and length of stay in the United States. Native Competence and U.S. Competence were positively correlated ($r = .29$, $p < .05$), but to a much lesser degree than U.S. Language and U.S. Competence ($r = .80$, $p < .01$). Length of residency in the U.S. was positively correlated with U.S. Language ($r = .29$, $p < .05$) and negatively correlated with Native Competence ($r = -.36$, $p < .01$). No other correlations were significant.

Next, the associations between acculturation constructs and the barriers/benefits variables were examined. Results showed significant correlations between Native Competence and barriers ($r = -.29$; $p < .05$) and between Native Competence and perceived benefits ($r = .30$; $p < .05$). Correlations involving length of residence or the measures of U.S. acculturation with perceived barriers and/or with perceived benefits were not significant. Following this step, we compared program attendance and acculturation constructs and found no significant relations. However, we did find that barriers were negatively related to attendance ($r = -.27$, $p < .05$).

Table 4 reports the results from the hierarchical regression model. After controlling for acculturation variables and parent perceptions, there was a significant relationship between expected barriers-to-treatment and attendance at the program ($\beta = -0.32$, $p < .05$).

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Discussion

The purpose of this study was to examine how implementing a culturally adapted treatment might reduce barriers to participation in treatment by immigrant Latino parents of preschool children. Overall, the results showed that specific barriers to treatment do interfere with participation by Latinos, above and beyond the influence of acculturation indices, perceived economic stress, and anticipated benefits of the program. These findings underscore the importance of considering multiple factors, including barriers and acculturation differences, when developing and implementing culturally adapted treatment programs.

From a public health perspective, there have been calls for “outreach programs” targeting immigrant populations with low levels of acculturation, as some studies have documented limited access to health care for this group (Lara et al., 2005, p. 385). Our results show that by anticipating engagement factors for a recently arriving population of Latino immigrants, community-based programs can be successful in meeting the diverse needs of this population. In this study, we planned a series of accommodations to account for and deliberately recruit parents of with low levels of U.S. Competence and Language including (a) providing ESL classes, (b) offering the materials in both Spanish and English, and (c) training and providing bilingual facilitators to deliver the intervention. Using supports in Spanish to allow parents to develop English language skills and learn about educational approaches used in the United States, our program deliberately encouraged participants to maintain their native cultural competencies (e.g., discussing how to teach children to read using Spanish or English books; storytelling about Latino culture using Spanish) while expanding their U.S. cultural competence. Our study found that parents reporting high levels of Native cultural competence endorsed more perceived benefits of the intervention. We interpret these results as evidence that the scaffolding experiences featured in our culturally adapted program were instrumental in facilitating participation for those parents who were knowledgeable about their own culture but perhaps had less familiarity with the United States, perhaps because of their limited time living in this country.

Our conceptual model emphasizing the importance of considering acculturation with Latinos was empirically supported. Because we found that higher levels of native cultural competence were associated with fewer perceived barriers to treatment, perhaps these individuals are more inclined to participate in a program that could help them adjust to life in the United States and learn information about navigating this new culture. We might consider these individuals as adopting the integrative approach to biculturalism, where individuals retain their native cultural competence while seeking to add new skills and values from the receiving culture (Berry, 2006). Alternatively, parents who possess other avenues for learning English and who already perceive themselves as aware of U.S. cultural practices may see less need for this type of service, as compared with parents who have limited resources to assist with overcoming language and cultural barriers.

Another distinctive feature of this study involves the measurement of acculturation using the recommended bidimensional approach (Lara et al., 2005), such that we could examine both native cultural competence and emerging U.S. competencies for this sample of fairly recent immigrants. In our study, length of residence related positively to U.S. language competence and negatively to Native cultural competence, but was not related to other aspects of acculturation. However, parents with higher levels of Native cultural competence perceived greater benefits associated with the program. Perhaps these parents felt a strong appreciation for a parenting program for Spanish-speakers and felt a connection to presenters who shared their language and cultural background as noted by Auerbach (2004). Future studies can examine this relation more

precisely by investigating potential mediators among acculturation and benefits and usage of interventions, such as parental self-efficacy or ethnic identity/cultural pride.

Similar to extant literature on engagement of Latino parents within school settings (Auerbach, 2004, 2009; Shapiro, DuPaul, Barnabas, Benson, & Slay, 2010), we endorse the importance of establishing a collaborative academic-community partnership before conducting research and intervention studies. Our partnership involved a community of recent immigrants, members of our local Head Start program, and the university members of the research team, including Latino students and faculty. The partnership was collaborative as the goals were determined with input along the way from community members (Suarez-Balcazar et al., 2004). Gathering input from these stakeholders during the adaptation and pilot was an important strategy for ensuring the social validity of this culturally adapted treatment. Interestingly, because of the partnership, families outside of the Latino culture who were also recent immigrants felt welcome attending some of the intervention sessions alongside of these Latino families. Therefore, it may be that this intervention is sustainable as it falls within the mission of Head Start family engagement services being open and inclusive of all interested immigrant families.

To advance the health and wellbeing of Latino children, barriers to treatment must continue to be studied and addressed to maximize access to services for underserved populations. As noted by Karoly and Gonzalez (2011), children of immigrant parents remain less likely to enroll in early childhood programs as a result of access and affordability issues, which further restricts opportunities for their parents to participate in center-based interventions. Reviews also suggest that greater barriers to accessing health care are found among immigrant families with less acculturation (e.g., Lara et al., 2005). We recommend that future research test more complex theories regarding how factors associated with acculturation for immigrant and Latino populations influence their attitudes and/or decisions regarding how to access services. For example, it may be that parents' work environment may contribute positively to their emerging acculturation to U.S. culture and increasing English language ability. Also, parents who are employed outside the home and use child care benefit from interactions with staff at child care centers by understanding more about child development and U.S. school systems. However, working parents likely experience barriers associated with their work schedules that may impact their willingness or ability to access health care services or educational programs. These issues represent areas of inquiry for future study.

Limitations

Despite the strengths of our study, we must acknowledge several limitations. We measured barriers to treatment just before treatment implementation; therefore, this measure reflected the barriers that parents expected to face in participating in the intervention rather than the actual barriers during the 12 weeks. It may be that a decrease or increase in actual barriers during the intervention is a better predictor of engagement; this should be addressed in future analyses as prior studies (Mendez et al., 2009; Spoth & Redmond, 2000) assess barriers at one time point

treating them as fixed variables. Considering the timing of intervention delivery (e.g., allowing families to sign up for a course during fall or spring) might also make a program more attractive to families, especially when modifiable barriers are anticipated and considered in the intervention planning. Assessing barriers and discussing family concerns is another way to engage families, particularly if other resources (e.g., transportation, child care) can be offered to families before starting program delivery.

Another potential limitation of the study involves our sample and associated characteristics. Because our participants were low-income, Latino parents of young children who were U.S. born citizens and who were enrolled in Head Start programs, we cannot state if the findings will generalize to other groups. For example, studies might examine how this treatment might be implemented with immigrants in different settings outside of Head Start or who have lived longer in the United States. Culturally adapted treatments might also impact families differently if children were also immigrants and did not have U.S. citizenship and associated benefits. We also concur with colleagues (White et al., 2009) who recommend attention to potential differences associated with the culture of origin for Latino populations, and this study was not designed to address this issue.

Conclusion

In conclusion, more research with Latino samples that examines how acculturation may play a role in the selection and usage of health care services is needed. Specifically, studies that consider how acculturation processes unfold over time may help inform what preventive intervention strategies can most effectively support members of immigrant families. Finally, considering what topics are needed for parents with children at different developmental stages is an important aspect of social validity. Auerbach's (2004) Family and Futures intervention is an excellent example of how involving Latino parents in a college access program needs to begin by working with parents of middle school children, to fully engage parents in discussions of college access. The present study reported on a program targeted toward preschool parents addressing the stage-salient issue of school readiness, emphasizing how programming offered in the native language and in a community location may foster treatment engagement among Latinos. Overall, the findings from this study and similar studies regarding efforts to implement culturally adapted treatment for Latino families will help to remedy persistent disparities affecting Latino populations in the U.S. regarding inadequate access to high quality health care and educational services.

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